

Title (en)

Process to produce moderate purity oxygen using a double column plus an auxiliary low pressure column

Title (de)

Verfahren zur Herstellung von Sauerstoff mässiger Reinheit unter Verwendung einer Doppelkolonne und einer Niederdruckhilfskolonne

Title (fr)

Procédé de production d'oxygène à pureté modérée en utilisant une double colonne et une colonne auxiliaire à basse pression

Publication

**EP 0823605 A3 19980506 (EN)**

Application

**EP 97305841 A 19970801**

Priority

US 69299096 A 19960806

Abstract (en)

[origin: US5701764A] A process is set forth for the cryogenic distillation of an air feed to produce an oxygen product, particularly an oxygen product at moderate purity (80-99%, preferably 85-95%). The process uses an auxiliary low pressure column in addition to the conventional high pressure column and low pressure column. The auxiliary low pressure column, which is preferably operated at the same pressure as the main low pressure column and which is heat integrated with the top of the high pressure column by means of its bottom reboiler/condenser, pretreats the crude liquid oxygen from the bottom of the high pressure column. The resulting overhead vapor stream and bottom stream are subsequently fed to the main low pressure column. Preferably, the bottom stream is fed to the main low pressure column in a state which is at least partially vapor.

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**F25J 3/04**

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

- [A] US 4854954 A 19890808 - ERICKSON DONALD C [US]
- [A] US 4604116 A 19860805 - ERICKSON DONALD C [US]
- [A] US 5069699 A 19911203 - AGRAWAL RAKESH [US]

Cited by

US10852061B2

Designated contracting state (EPC)

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**US 5701764 A 19971230**; CN 1174321 A 19980225; EP 0823605 A2 19980211; EP 0823605 A3 19980506; JP H1073371 A 19980317; KR 19980018373 A 19980605

DOCDB simple family (application)

**US 69299096 A 19960806**; CN 97117199 A 19970805; EP 97305841 A 19970801; JP 21231797 A 19970806; KR 19970037322 A 19970805